Instruction Manual for TAKEGAWA-made CARBURETOR SET to Install Keihin PE28 Carburetor Kit

(For exclusive use in Super Head+R-equipped motorcyles)

Item No. : **０３－０５－０９８１** (Carburetor set)
: **０３－０２－２５５１** (Manifold kit)
Fitting models and the frame Nos:
Monkey: Z50J-2000001～
: AB27-1000001～

・Thank you for purchasing one of our TAKEGAWA-made products. Please strictly follow the following instructions in installing and using the kit.
・Before installing the kit, please be sure to check the kit contents. Should you have any questions about the kit, please contact your local motorcycle dealer.

◎ **Please note that, in some cases, the illustrations and photos may vary from the actual hardware.**

Read all instructions first before starting the installation

◎ We do not take any responsibility for any accident or damage whatsoever arising from the use of the kit not in conformity with the instructions in the manual.
◎ We shall be held free from any kind of warranty whatsoever of products other than this product if the glitch takes place on the other products than this one after the installation and use of this product.
◎ This carburetor kit is for exclusive use in a motorcycle equipped with TAKEGAWA-made Super Head+R Bore Up Kit and Bore Stroke Up Kit and is compatible only with a stock engine and Super Head+R.
◎ Do the installation work correctly referring to the relative Honda's genuine service manual for the above-mentioned fitting models.
◎Please note that this kit is designed for exclusive use in the above-mentioned fitting models and frame numbers only and that it cannot be mounted on other models.
◎ You are kindly requested not to contact us about the combination of our products with other manufacturers'.
◎ Setting of a carburetor must be adjusted depending on the natural phenomena like the weather, temperatures and barometic pressure, and machine and carburetor themselves. Arrange the setting to match the engine and other conditions. For your information, the carburetor is shipped out in a state described on page 2.
◎ A stock throttle housing is not to be used. Therefore, a brake lever, etc need to be prepared by a user.
◎This kit is designed for exclusive use in the closed racing. So, take note that it is prohibited to drive your motorcycle on a public road after the installation of this kit. Drive your motorcycle at a legal speed, abiding by the laws.

⚠ Note The following show the envisioned possibility of injuries to human bodies and property damage as a result of disregarding the following cautions.

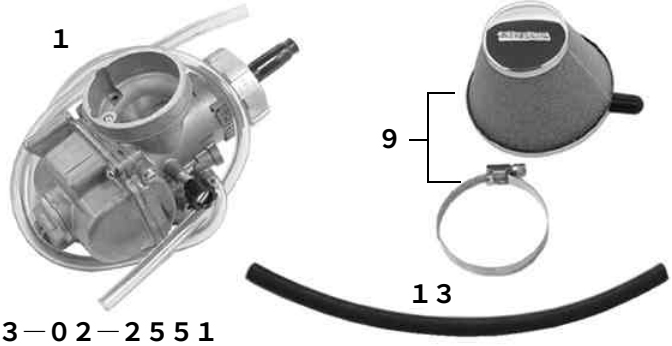
- Work only when the engine and muffler are cool. (Otherwise, you will burn yourself.)
- Do the installation with right tools. (Otherwise, breakage of parts or injuries to yourself may take place.)
- Always use a torque wrench to screw bolts and nuts tight and securely to the specified torque. (Otherwise, these parts may get damaged or fall off, resulting in accidents.)
- As some products and frames have sharp edges or protruding portions, please work with your hands protected. (Otherwise, you will suffer injuries.)
- Before riding, always check every section for slack in parts like screws. If you find slack ones, screw them securely up to the specified torque. (Otherwise, improper tightening may cause parts to come off.)
- Always use new gaskets, and packings. And check those parts to be reused for wear and damage. If you find worn or damaged parts, replace them with new ones.

⚠Warning The following show the envisioned possibility of human death or serious injuries to human bodies as a result of disregarding the following warning.

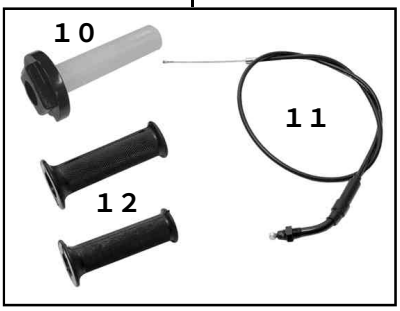
- Always start the engine in a well-ventilated place, and do not turn on the engine in an airtight place. (Otherwise, you will suffer from carbon monoxide poisoning.)
- When you notice something abnormal with your motorcycle while riding, immediately stop riding and park your motorcyle in a safe place to check what has gone wrong. (Otherwise, the abnormality could lead to accidents.)
- Before doing work, make sure your motorcycle is secure on level ground for safety's sake. (Otherwise, your motorcycle could overturn and injure you while you are working.)
- Check or carry out maintenance of your motorcycle correctly according to the procedures in the instruction manual or service manual. (Improper checking or maintenance could lead to accidents.)
- If you find damaged parts when checking and performing maintenance of your motorcycle, do not use these parts any longer, and replace them with new ones. The continued use of these damaged parts as they are could lead to accidents.)
- As gasoline is highly flammable, never place it close to fire. Make sure that nothing flammable is near the gasoline. Since vaporized accumulation of gasoline is at high risk of explosion, work in a well-ventilated place. (Otherwise, it may cause a fire.)

◎ Please be informed that, mainly because of improvement in performance, design changes, and cost increase, the product specifications and prices are subject to change without prior notice.
◎ This manual should be retained for future reference.

～Kit Contents～



09－02－0221

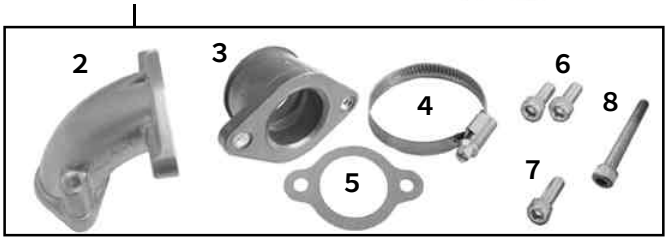


Option

Throttle cable, 710mm

09－02－0071

03－02－2551



Factory preset mode of the carburetor

Main jet	#128
Slow jet	#52
Jet needle	F1343H24NAAC
Clip position	2nd groove from top
Throttle valve cut-away	# 6.0
Air screw opening	1±1/4 turns

No.	Part Name	Qty	Part Name	Qty
1	Carburetor assembly	1	03-03-027	1
2	Inlet pipe	1	17111-2SM-T00	1
3	Insulator	1	16212-181-T01	1
4	Insulator band	1	00-00-0050	1
5	Inlet pipe gasket	1	00-03-0009	3
6	Cap screw, 6x15	2	00-00-0042	10
7	Cap screw, 6x20	1	00-00-0043	10
8	Cap screw, 6x40	1	00-00-0137	4
9	Air filter	1	03-01-1064	1
10	Throttle COMP.	1	————	
11	Throttle cable, 810mm	1	09-02-0081	1
12	Pair of throttle grips	1	09-02-0002	1
13	Fuel hose, 200mm	1	00-03-0203	1
14	Main jet, #110	1	00-03-0094	1
	Main jet, #115	1	00-03-0096	1
	Slow jet, #35	1	00-03-0137	1
	Hex wrench, 5mm	1	————	

※Please note that in ordering repair parts, be sure to quote the Repair Part Item No. Otherwise, we may not be able to accept your orders. There are some parts, however, for which we are not in a position to accept your order in just the quantity to be used. In this case, please take them in the quantity packed.

PE28 Slow jet

Item No.	Item Name
00-03-0137	#35
00-03-0138	#38
00-03-0139	#40
00-03-0140	#42
00-03-0141	#45
00-03-0142	#48
00-03-0143	#50
00-03-0144	#52
00-03-0145	#55
00-03-0146	#58
00-03-0147	#60
00-03-0148	#62
00-03-0149	#65
00-03-0150	#70

PE28 Main Jet

Item No.	Item Name	Item No.	Item Name	Item No.	Item Name
00-03-0130	#82	00-03-0099	#122	00-03-0115	#162
00-03-0131	#85	00-03-0100	#125	00-03-0116	#165
00-03-0132	#88	00-03-0101	#128	00-03-0117	#168
00-03-0133	#90	00-03-0102	#130	00-03-0118	#170
00-03-0134	#92	00-03-0103	#132	00-03-0119	#172
00-03-0135	#95	00-03-0104	#135	00-03-0120	#175
00-03-0136	#98	00-03-0105	#138	00-03-0121	#178
00-03-0090	#100	00-03-0106	#140	00-03-0122	#180
00-03-0091	#102	00-03-0107	#142	00-03-0202	#182
00-03-0092	#105	00-03-0108	#145	00-03-0123	#185
00-03-0093	#108	00-03-0109	#148	00-03-0124	#188
00-03-0094	#110	00-03-0110	#150	00-03-0125	#190
00-03-0095	#112	00-03-0111	#152	00-03-0126	#192
00-03-0096	#115	00-03-0112	#155	00-03-0127	#195
00-03-0097	#118	00-03-0113	#158	00-03-0128	#198
00-03-0098	#120	00-03-0114	#160	00-03-0129	#200

☆Setting of a carburetor must be adjusted depending on the natural phenomena like the weather, temperatures and barometic pressure, and machine and carburetor themselves. Arrange the setting to match the engine and other conditions.

☆A stock air cleaner cannot be equipped together with this kit. The engine will go wrong if the engine gets wet. So, please refrain from running in the rain. Besides, before washing your vehicle, cover the carburetor with a plastic sheet or the like to prevent water from getting into the carburetor.

～Installation Procedures～

Check the kit contents.

(Preparation for installation)

⚠Note : Make sure that the engine and muffler are cool and that the motorcyle is securely supported!

○After making sure that the fuel cock is closed, open a drain cock on the carburetor, and drain the gasoline from the float chamber to a gasoline container.

○Unfasten the inlet-pipe-tightening bolt and air-cleaner-mounting bolts. Remove a throttle valve from a carburetor. Then remove the carburetor with the air cleaner box, the inlet pipe and all.

※ Be careful not to let any foreign materials fall into the intake port.

○Remove the throttle valve from the carburetor. Separate the throttle valve and the throttle cable. Remove the top cover from the throttle cable.

○ Unfasten pan screws on the throttle housing to remove the throttle housing.

○Fix an earth wire to the frame with an air-cleaner-mounting bolt.

○ Referring to the service manual, demount the engine from the frame. And with reference to the installation procedures for the Super Head+R, install the Super Head+R to the engine, and then mount the engine onto the frame.

⚠Note : Be sure to follow the service-manual instructions and the specified torque!

(Installation)

○ Pass the supplied throttle cable through the frame.

○Fit the supplied throttle cable into the lower throttle housing, and connect the inner cable to the throttle pipe. And attach the throttle housing to the handle with two screws.

※ Apply grease to the rubbing surface of the throttle pipe, the cable end, and to the portion on the pipe to take up the cable.

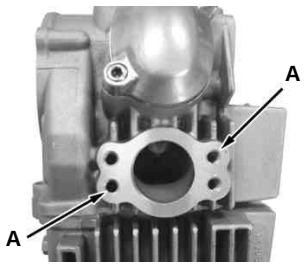
Torque: 5 N•m (0.5 kgf•m)

⚠Note : Be sure to follow the specified torque.

○ Attach socket set screws, included in the Cylinder Head Kit, to two taps marked A on the cylinder head surface to attach the inlet pipe to, and tighten the screws to the specified torque.

Torque: 5 N•m (0.5 kgf•m)

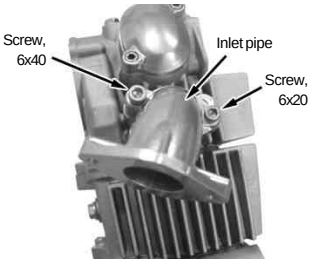
⚠Note : Be sure to follow the specified torque.



○Put an inlet pipe gasket between the cylinder head and the inlet pipe, and tighten it with 6x20 and 6x45 socket cap screws to the specified torque.

Torque: 10 N•m (1.0kgf•m)

⚠Note : Be sure to follow the specified torque.



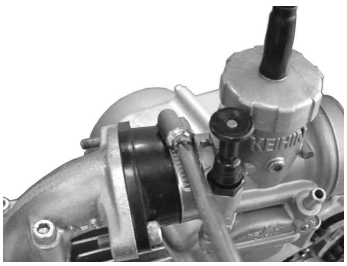
○Fasten the insulator to the inlet pipe with two socket cap screws.

Torque: 10 N•m (1.0kgf•m)

○Remove a float chamber, and then a main jet. Attach a supplied main jet #110 and slow jet #35, and then a float chamber.

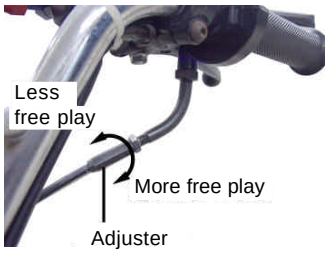
○ Detach a top cover of the supplied carburetor, and pull out the spring and the throttle valve. Pass the inner cable of the throttle cable through the carburetor top cover and then through the spring.
And compressing the spring, fix the top cover to the throttle valve. Fix the throttle valve to the carburetor by aligning a notch on the throttle valve with the throttle stop screw.

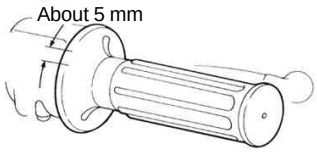
○ Fit the carburetor into the insulator, and fasten the carburetor with a clamp band.



○ Attach an air filter, which please fix by tightening a band.

○Adjust the free play at the throttle grip to be about 5 mm by turning the adjuster of the throttle cable. See the figure below.





Snap the throttle a few times to make sure that the throttle moves smoothly without sticking and that the throttle valve is fully open. Also check that the throttle has free play even when a steering handle is turned all the way to the right or to the left.

○Insert a fuel tube and fasten it with a tube clip. Open the fuel cock and ckeck for oil leaks. (Do not leave the cock open for many hours.)

○ Dispose of the blow-by gas from the crankcase by yourself. (Some races and regulations specify the blow-by gas disposal.)

○ In sending back the blow-by gas to the carburetor, connect the blow-by hose with the union on the air-filter.

○Pull the choke lever to start the engine. Gradually push the lever back and warm up the engine till the revolution becomes smooth, and finally push the lever back to its original location.
In case the engine does not run idle after the warm-up of the engine, or the engine idling speed is high, adjust the setting by turning the throttle stop screw.

○ Adjust the setting with utmost care in a safe place to meet the specification of each motorcycle.

SPECIAL PARTS TAKEGAWA Co.,Ltd.
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How to Set the Carburetor

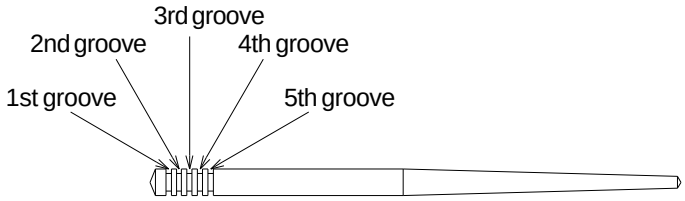
• When the carburetor does not match the engine and the engine fails, the engine failures are caused by either too dense or too lean air-fuel mixture.
• The engine failure symptoms for the engine are as follows:

When the air-fuel mixture is too dense:	When the air-fuel mixture is too lean:
• The explosion sound with a dull thud continues intermittently. • The engine malfunctions further if you use the choke. • The engine malfunctions when you warm it up. • The engine works well if the cleaner is detached. • The motorcycle belches dense (or, black) exhaust gas. • The plug smolders, getting blackened.	• The engine overheats somewhat. • The engine starts working well If you use the choke,. •The engine does not accelerate well. (No smooth acceleration) • Revolutions change, generating weak power. • The plug burns white.

※ Set the carburetor only after warming up the engine, and then test-drive. And use a plug with the right heat value.
※ Do the setting in the following manner, studying at what throttle opening position the engine starts failing.

○Jet needle (Throttle position at 1/4 - 3/4)

Whether or not the engine revolution is in proportion to the throttle operation
• When the acceleration is not smooth or even, make the air-fuel mixture dense.
• Make the air-fuel mixture lean when the engine revolution goes up heavily and belches black gas.
The mixture ratio at this throttle position can be adjusted by the location of E-ring in the grooves. The air-fuel mixture becomes dense as the location of the E-ring moves down from the 1st to the 5th groove.



○Main jet (The throttle position at 3/4 - 4/4)

The air-fuel mixture ratio at this throttle position can be adjusted by changing the number of the main jet. The larger the main jet numbers, the denser the mixture ratio becomes.
In view of the engine and muffler specifications, select the most appropriate main jet to get the highest revolutions.

○Pilot jet (First of all, please adjust the air screw.)

• In case you have given more than three turns to the air screw to tighten it, use a pilot jet with a small number.
• If you have tighten the air screw (clockwise) to the full, use a pilot jet with a larger number.
Check whether you have made a right choice of the pilot jet by seeing if the engine starts up revolving smoothly from the idling to running at slow speed.
• When the engine revolves up unevenly, the pilot jet number is too small. (At idle)
• When the motorcycle belches black exhaust gas and produces heavy exhaust sound, the pilot jet number is too big. (At idle)
• After replacing the pilot jet, you need to readjust the airscrew.

○ Air screw

The air screw adjusts the air mass flow at the time of engine's revolving at slow speed. (At idling)
• Give the air screw a right turn → The air-fuel mixture gets dense.
• Give the air screw a left turn → The air-fuel mixture gets lean.
Loosen the tightened air screw back to the 1.5-turn position. And then from this position, give to the airscrew a right or left turn of 1/4 to 1/2 till the engine revolves at the highest speed.
Loosen the idle stop screw till you get the steady idling revolutions. And once again adjust the position of the airscrew to get the highest revolutions.

●On how the barometric pressure, temperatures and humidity affect the setting:

• At highlands or at high altitudes, the barometric pressure and air density go down and the air gets into the carburetor in less amounts. This makes the air-fuel mixture dense which was adjusted at low altitudes.
• Under the weather conditions with very low temperatures, the air density increases, which makes the air-fuel mixture lean.
• Under the rainy and humid weather conditions, the air density decreases, which makes the air-fuel mixture dense.

◎ Please be informed that, mainly because of improvement in performance, design changes, and cost increase, the product specifications and prices are subject to change without prior notice.
◎ This manual should be retained for future reference.

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